

Appl. No. 09/514,526
Reply to Office Action of March 7, 2003

REMARKS/ARGUMENTS

Applicants respectfully request entry of the above amendment and reconsideration in view of the amendment and the following remarks.

The status of the application is as follows. Claims 18-37 are currently pending in the application.

Claims 18-25 and 28-30 stand rejected under 35 USC §112, second paragraph, as allegedly being indefinite.

Claims 18-21 and 32 stand rejected under 35 USC §102(b) as allegedly being anticipated by US 4,105,468 to *Geshner et al.*

Claim 21 stands rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.* in view of US 3,630,795 to *Vorie*. Claims 22-25, 28, 29, 31, 33-34, and 36 stand rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.*, as applied to claims 18-21 above, in view of US 4,370,197 to *Abolafia et al.* Claims 22-25, 28, 29, 31, and 33-34 stand rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.* and *Abolafia et al.*, in view of US 4,366,034 to *Ricks et al.* Claims 30 and 37 stand rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.* as applied to claims 18-21 above, in view of US 5,149,404 to *Blonder et al.* Claims 26, 27 and 35 stand rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.* as applied to claims 18-21 above, in view of US 4,344,223 to *Bulger et al.*

Applicants respectfully traverse the §112, §102 and §103 rejections with the following arguments.

Rejections under 35 USC §112

Claims 18-25 and 28-30 stand rejected under 35 USC §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner alleges that it is not clear what is being claimed, that is, whether the claim is drawn to an "electrical structure", a

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"conveyorized apparatus", or a "method of etching".

In conformity with the Examiner's suggestion, independent claim 18 has been amended herein for clarification and to more particularly claim the subject matter (*i.e.*, an apparatus) of the invention. Claims 19-25 and 28-30 depend from claim 18, and have therefore been amended accordingly to reflect the amendment of claim 18. No new matter is believed added. Applicants respectfully request withdrawal of this rejection.

Rejections under 35 USC §102

Claims 18-21 and 32 stand rejected under 35 USC §102(b) as allegedly being anticipated by *Geshner et al.*

The Examiner alleges that *Geshner et al.* discloses an electrical structure comprising a chromium volume, an iron-comprising body in continuous electrical contact with the chromium volume, and an acid solution in continuous contact with both the chromium volume and the iron-comprising body, wherein the chromium body is being etched at an etch rate.

Applicants respectfully contend that *Geshner et al.* does not anticipate claim 18, because *Geshner et al.* does not teach each and every feature of claim 18, as amended herein. For example, *Geshner et al.* does not teach an apparatus comprising "a conveyorized device adapted to receive a chromium volume" and "a spray applicator adapted to dispense an acid solution proximate said chromium volume". In contrast, *Geshner et al.* is completely silent regarding an apparatus comprising these features.

Based on the preceding arguments, Applicants respectfully maintain that *Geshner et al.* does not anticipate claim 18, and that claim 18 is in condition for allowance. Since claims 19-21 depend from claim 18, Applicants contend that claims 19-21 are likewise in condition for allowance. Withdrawal of this rejection is respectfully requested.

Regarding claim 32, Applicants submit that independent claim 31, from which claim 32 depends, includes the same features as claim 18 discussed *supra*. Applicants further submit that claim 32 is allowable for the same reasons. Withdrawal of this rejection is respectfully requested.

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Rejections under 35 USC §103

Claim 21 stands rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.* in view of *Vorie*.

Applicants respectfully contend that claim 21 is not obvious in view of *Geshner et al.* and *Vorie*, because *Geshner et al.* and *Vorie*, taken alone or in combination, do not teach or suggest each and every feature of independent claim 18 from which claim 21 depends. For example, *Geshner et al.* and *Vorie* do not teach or suggest, *inter alia*, "a conveyORIZED device adapted to receive a chromium volume" and "a spray applicator adapted to dispense an acid solution proximate said chromium volume". Rather, as noted *supra*, *Geshner et al.* does not disclose an apparatus that teaches or suggests these features. Further, *Vorie* teaches away from the concept of a "conveyORIZED device" when *Vorie* discloses that a "substrate 2 is held in place on the surface of fixture 3 by a vacuum developed inside chamber 4 of the fixture 3" (col. 2, lines 26-32).

Based on the preceding arguments, Applicants respectfully maintain that claim 18 is not unpatentable over *Geshner et al.* and *Vorie*, and that claim 18 is in condition for allowance. Since claim 21 depends from claim 18, Applicants contend that claim 21 is likewise in condition for allowance.

Claims 22-25, 28, 29, 31, 33, 34, and 36 stand rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.* as applied to claims 18-21 above, in view of *Abolafia et al.*

Applicants respectfully contend that claims 22-25, 28 and 29 are not obvious in view of *Geshner et al.* and *Abolafia et al.*, because the cited references, taken alone or in combination, do not teach or suggest each and every feature of independent claim 18 from which claims 22-25, 28 and 29 depend. For example, *Geshner et al.* and *Abolafia et al.* do not teach or suggest, *inter alia*, "a conveyORIZED device adapted to receive a chromium volume" and "a spray applicator adapted to dispense an acid solution proximate said chromium volume". Rather, as noted *supra*,

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Geshner et al. does not disclose an apparatus that teaches or suggests these features. Similarly, *Abolafia et al.* does not disclose an apparatus that teaches or suggests these features.

Based on the preceding arguments, Applicants respectfully maintain that claim 18 is not obvious in view of *Geshner et al.* and *Abolafia et al.*, and that claim 18 is in condition for allowance. Since claims 22-25, 28 and 29 depend from claim 18, Applicants contend that claims 22-25, 28 and 29 are likewise in condition for allowance.

Regarding claims 31, 33, 34, and 36, Applicants submit that independent claim 31, from which claims 33, 34 and 36 depend, includes the same features as claim 18 discussed *supra*. Applicants further submit that claim 31 is allowable for the same reasons as discussed with respect to claim 18. Withdrawal of this rejection is respectfully requested.

Claims 22-25, 28, 29, 31, 33, and 34 stand rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.* and *Abolafia et al.* in view of *Ricks et al.*

Applicants respectfully contend that claims 22-25, 28 and 29 are not obvious in view of *Geshner et al.* and *Abolafia et al.* in view of *Ricks et al.*, because *Geshner et al.*, *Abolafia et al.* and *Ricks et al.*, taken alone or in combination, do not teach or suggest each and every feature of independent claim 18 from which claims 22-25, 28 and 29 depend. For example, *Geshner et al.* and *Abolafia et al.*, as discussed *supra*, as well as *Ricks et al.*, do not teach or suggest, *inter alia*, "a conveyORIZED device adapted to receive a chromium volume" and "a spray applicator adapted to dispense an acid solution proximate said chromium volume". Rather, as noted *supra*, *Geshner et al.* and *Abolafia et al.* do not disclose an apparatus that teaches or suggests these features. Similarly, *Ricks et al.* does not disclose an apparatus that teaches or suggests these features. Further, *Ricks et al.* teaches away from the instant invention, since *Ricks et al.* is directed towards an electroplating process for depositing chromium onto a surface (*i.e.*, reverse etching), rather than etching chromium away from a surface. In any event, *Ricks et al.* does not teach or suggest, *inter alia*, etching a chromium volume, and therefore the rejection based on *Ricks et al.* is inapplicable to claim 22.

Regarding the feature of claim 22, "wherein said iron-comprising body includes steel,"

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Applicants disagree with Examiner's assertion that it would be obvious to substitute an "iron-comprising body including steel" for an "iron-comprising body." The Examiner does not provide any support for this assertion that there are "inherent physical, electrical, and structural similarities and properties" of both materials. Rather, Applicants suggest that evidence can be found to support the opposite view. Iron is an element, while steel is an alloy of iron containing more carbon than wrought iron. Further, steel is generally known as a "hard, strong, durable malleable alloy of iron and carbon, usually containing between 0.2 and 1.5 percent carbon, often with other constituents such as manganese, chromium, nickel, molybdenum, copper, tungsten, cobalt, or silicon, depending on the desired alloy properties." (See, American Heritage Dictionary). Regarding electrical properties, the resistivity, for example, of steel, at 20°C, varies from about 60 to about 120 ohm-cm. The resistivity of iron at the same temperature is about 10 ohm-cm. (See, Handbook of Physics and Chemistry). Applicants respectfully submit, therefore, that there are sufficient differences between an "iron-comprising body including steel" and an "iron-comprising body" that their interchange or substitution would not be obvious.

Based on the preceding arguments, Applicants respectfully maintain that claim 18 patentably distinguishes over *Geshner et al.* and *Abolafia et al.* in view of *Ricks et al.*, and that claim 18 is in condition for allowance. Since claims 22-25, 28 and 29 depend from claim 18, Applicants contend that claims 22-25, 28 and 29 are likewise in condition for allowance.

Claims 30 and 37 stand rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.* as applied to claims 18-21 above, in view of *Blonder et al.*

Applicants respectfully contend that claim 30 is not obvious in view of *Geshner et al.* in view of *Blonder et al.*, because *Geshner et al.* and *Blonder et al.*, taken alone or in combination, do not teach or suggest each and every feature of independent claim 18 from which claim 30 depends. For example, *Geshner et al.*, as discussed *supra*, does not teach or suggest, *inter alia*, "a conveyorized device adapted to receive a chromium volume" and "a spray applicator adapted to dispense an acid solution proximate said chromium volume". Rather, as noted *supra*, *Geshner et al.* does not disclose an apparatus that teaches or suggests these features. Similarly, *Blonder et*

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al. does not disclose a conveyORIZED processing apparatus that teaches or suggests these features. Further, *Blonder et al.* teaches away from the instant invention, since *Blonder et al.* is directed towards an electromachining process which would be incompatible with an electroplating process.

Based on the preceding arguments, Applicants respectfully maintain that claim 18 patentably distinguishes over *Geshner et al.* in view of *Blonder et al.*, and that claim 18 is in condition for allowance. Since claim 30 depends from claim 18, Applicants contend that claim 30 is likewise in condition for allowance.

Claims 26, 27 and 35 stand rejected under 35 USC §103(a) as allegedly being unpatentable over *Geshner et al.* as applied to claims 18-21 above, in view of *Bulger et al.*

Applicants respectfully contend that claims 26 and 27 are not obvious in view of *Geshner et al.* in view of *Bulger et al.*, because *Geshner et al.* and *Bulger et al.*, taken alone or in combination, do not teach or suggest each and every feature of independent claim 18 from which claims 26 and 27 depend. For example, *Geshner et al.*, as discussed *supra*, does not teach or suggest, *inter alia*, "a conveyORIZED device adapted to receive a chromium volume" and "a spray applicator adapted to dispense an acid solution proximate said chromium volume". Rather, as noted *supra*, *Geshner et al.* does not disclose an apparatus that teaches or suggests these features. Similarly, *Bulger et al.* also does not disclose a conveyORIZED processing apparatus that teaches or suggests these features.

Based on the preceding arguments, Applicants respectfully maintain that claim 18 patentably distinguishes over *Geshner et al.* in view of *Bulger et al.*, and that claim 18 is in condition for allowance. Since claims 26 and 27 depend from claim 18, Applicants contend that claims 26 and 27 are likewise in condition for allowance.

Note that new claim 31 is essentially the same as claim 22 prior to the present amendment of claim 18, and that the arguments presented *supra* in conjunction with the inclusion of steel in claim 22 also apply to new claim 31. Accordingly, Applicants submit that new claim 31, and new claims 32-37 which depend from claim 31, are in condition for allowance.

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Conclusion

Accordingly, based on the preceding arguments, Applicants respectfully submit that claims 18-37, and the entire application, are in condition for allowance and therefore request favorable action. However, should the Examiner believe anything further is necessary in order to place the application in better condition for allowance, or if the Examiner believes that a telephone interview would be advantageous to resolve the issues presented, the Examiner is invited to contact the Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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